

Title (en)  
METHOD AND SYSTEM FOR COOLING AUTOMOTIVE ENGINES

Publication  
**EP 0207354 B1 19900905 (EN)**

Application  
**EP 86108222 A 19860616**

Priority  
JP 14781385 A 19850705

Abstract (en)  
[origin: JPS6210414A] PURPOSE:To simplify level control of liquid-phase refrigerant stored in a water jacket by forming a surplus refrigerant discharge hole at the specified level position of the liquid-phase refrigerant, and communicating the discharge hole with the lower tank of a condenser through an overflow passage. CONSTITUTION:In the case of the apparatus stated in the title, liquid-phase refrigerant stored up to the specified level in a water jacket 2 is heated during the operation of an internal-combustion engine 1, and the internal-combustion engine 1 is cooled by taking heat away when the refrigerant is boiled and vaporized. Then, the produced refrigerant vapor is cooled and condensed in a condenser 3, stored in a lower tank 18, and forced to flow back to the water jacket 2 by the operation of a refrigerant supply pump 4. In this case, a surplus refrigerant discharge hole 11 is formed to open at the specified level of the water jacket 2, and is communicated with the lower tank 18 through an overflow passage 21. Also, the lower tank 18 is connected to a reservoir tank 23 open to the atmosphere through an auxiliary refrigerant passage 25.

IPC 1-7  
**F01P 3/22**; **F01P 11/14**

IPC 8 full level  
**F01P 3/22** (2006.01); **F01P 11/14** (2006.01)

CPC (source: EP US)  
**F01P 3/22** (2013.01 - EP US); **F01P 11/14** (2013.01 - EP US)

Citation (examination)  
EP 0135116 A1 19850327 - NISSAN MOTOR [JP]

Cited by  
DE4342474C1; EP0545795A1; FR2684721A1; US5309870A

Designated contracting state (EPC)  
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**EP 0207354 A2 19870107**; **EP 0207354 A3 19880316**; **EP 0207354 B1 19900905**; CN 1006654 B 19900131; CN 86103731 A 19870204; DE 3673891 D1 19901011; JP S6210414 A 19870119; US 4658765 A 19870421

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